



2019
City of Bremerton
Stormwater Management Program
(SWMP)
Western Washington NPDES Phase II
Municipal Stormwater Permit
WAR04-5507

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Stormwater Management Program Summary

Introduction

Stormwater runoff flows over impervious surfaces like paved streets, parking lots, building rooftops, and is not able to soak into the ground. Stormwater systems are constructed to control runoff and convey water to streams, lakes, and marine water ways. Runoff picks up pollutants like trash, chemicals, oils, and dirt/sediment that can harm our streams, lakes, and Puget Sound. To protect these resources, best management practices (BMPs) were developed and are being implemented. Correct use of BMPs prevent erosion, eliminate potential pollutants at the source, remove pollutants in runoff, and protect water quality.

The Environmental Protection Agency (EPA) developed the National Pollutant Discharge Elimination System (NPDES) Permit, to regulate discharges from Small Municipal Separate Storm Sewers Systems (MS4s). Washington State Department of Ecology was delegated authority to implement this program and issues the stormwater permit to counties, cities, and the Washington State Department of Transportation. Bremerton is a Phase II Municipal Stormwater Permit because the population is less than 100,000.

Recognizing the need to control stormwater runoff and maintain the system, Bremerton established its Stormwater Utility through Ordinance 4454 in 1994 as codified in the Bremerton Municipal Code (BMC) 15.04 - Stormwater. User fees established under BMC Title 15.06.05 Rates – Stormwater, provide funding for the Stormwater Utility.

Program activities planned for 2019 are summarized in this Stormwater Management Program (SWMP) Plan. Permit required activities are addressed in the same order listed in the Permit. Each section has a short description of minimum performance measures and a summary of the existing or planned program components to fulfill the requirement. The Stormwater Program complies with Growth Management Act, Bremerton's City Comprehensive Plan, Shoreline Master Plan, and supports the City's Stormwater Comprehensive Plan which provides long range operational and capital improvement guidance for the Utility.

Bremerton's Stormwater Utility manages system assets, budget, capital improvement program, operation, maintenance, construction, street sweeping, environmental monitoring, and public education. Education and outreach provide the community with knowledge and tools to prevent and reduce stormwater pollution by changing practices that help to reduce pollution at the source. The City is a leader in using and promoting low impact development (LID) practices, which helps minimize the impact of stormwater from the urban landscape. All new and re-development that meets the LID threshold is required to include these practices and BMPs in their plans or prove that LID is not feasible.

The broad-ranging Permit regulates activities that impact stormwater quality and quantity from the City's stormwater system. These requirements affect businesses, residents, development, and city activities. Bremerton's Public Works & Utilities

(PW&U) Department coordinates, implements, provides compliance oversight and reporting for the Permit.

City of Bremerton Stormwater Management Program (SWMP)

The goals of the Stormwater program are:

- Comprehensive Stormwater Management Planning,
- Effectively and proactively manage the stormwater system,
- Effectively manage stormwater runoff,
- Comply with NPDES Stormwater Permit requirements,
- Provide acceptable level of service,
- Prevent flooding,
- Protect environmental resources by:
 - Improving and protecting water quality,
 - Reducing stormwater runoff quantity,
- Promote pollution prevention through education and inspections,
- Maintain and update GIS system map,
- Efficiently operate and maintain the stormwater system,
- Upgrade and replace older and failing assets,
- Identify and prioritize water quality improvement retrofit sites,
- Install water quality retrofit treatment systems,
- Assess and prioritize watershed water quality goals,
- Comply with Total Maximum Daily Load requirements (water quality cleanup),
- Maintain balanced budget for the program.

Legal Authority

The City of Bremerton established its Stormwater Utility pursuant to Ordinance 4454 in 1994 as codified in the Bremerton Municipal Code (BMC) 15.04 - Stormwater. Funding for the Stormwater Utility is provided by user fees as codified in Bremerton Municipal Code (BMC) Title 15.06.05 Rates – Stormwater. Bremerton’s SWMP is updated annually as required by the Western Washington Phase II Municipal Stormwater Permit. The Stormwater Program complies with Growth Management Act, supports the City’s Comprehensive Plan, and the City’s Stormwater Comprehensive Plan which provides long range operational and capital improvement guidance for the Utility. The Capital Improvement Program (CIP) identifies planned capital projects and is updated annually during the budget process.

Bremerton Municipal Code

BMC 15.04 Stormwater establishes rules and regulations to control erosion and sediment control.

Bremerton was issued the Western Washington Phase II Municipal Stormwater Permit (Permit) on January 16, 2015, by the Washington State Department of Ecology (DOE). Regulatory statutes governing this Permit are the State of Washington Water Pollution

Control Law, Chapter 90.48 Revised Code of Washington (RCW) and the Federal Water Pollution Control Act (The Clean Water Act) Title 33 United States Code, Section 1251 *et seq.*

The current Stormwater Comprehensive Plan (Plan) was adopted by City Council in January 2009. This Plan is being updated and will be completed in May of 2019. The Plan includes long range goals, a comprehensive capital improvement plan, preliminary designs and cost estimates, updated modeling, updated basin boundaries, and sub-basins. The Plan will provide program direction for the next 6 years and includes known system needs for the next 10 years. The Plan coordinates the Stormwater Program with the City's Comprehensive Plan, requirements of the Permit, and goals of the Puget Sound Partnership's Action Agenda. Surface and stormwater system water quality, quantity, system deficiencies, programmatic needs, operation and maintenance, staffing, LID implementation, capital program, and fish barriers will be highlighted.

Implementation of the SWMP is tracked and evaluated to improve the program and to fulfill Permit requirements. Cost for development and implementation of the SWMP is tracked through the financial system by various requirements of the Permit. Bremerton has partnered with other agencies and cities to coordinate stormwater related policies, public education, programs, and projects through interlocal agreements and coordination groups.

Bremerton's SWMP is designed to reduce the discharge of pollutants from its MS4 to the Maximum Extent Practicable (MEP) and protect beneficial uses of local receiving waters. The Program meets state requirements for use of all known, available, and reasonable methods of prevention, control, and treatment (AKART) to protect water quality.

Public Education and Outreach S5.C.1

Bremerton's education program goal is to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts. Brochures, signs on street sweepers, utility bill inserts, school presentations, e-news, display booths at community events, and targeted business-specific mailings are methods used to provide information to residents, businesses, industries, elected officials and policy makers.

S5.C.1 Provide an education and outreach program

The City of Bremerton has an interlocal agreement with Kitsap County Public Works to continue as a partner of the West Sound Stormwater Outreach Group (WSSOG), a collective of local jurisdictions. WSSOG is a collaborative effort to develop, implement, and fund stormwater education, outreach messages, materials, activities, and program assessment tools for the general public, businesses, and other target audiences as required by the Permit.

This regional program provides education and outreach with a consistent message through sharing of resources and ideas. WSSOG educational materials are used within Bremerton's existing programs including pet waste management, outreach to the automotive industry, vehicle maintenance, paint disposal, regional spills reporting hotline, and natural yard care.

Pet waste bag dispensers have been placed throughout Bremerton to raise awareness of the impact from pet waste left on the sidewalks and in our parks and to promote behavior change. The pet waste management program is used to meet permit requirement S5.C.1.c – “measure the understanding and adoption of the targeted behaviors...” and to meet the TMDL requirement in the Permit. There are 50 City owned and maintained dispensers located in parks, public right-of-way, and on City-owned properties throughout town. Residents in Bremerton can request pet waste bag dispensers through the WSSOG ILA program and will maintain the unit under the terms of the agreement they must sign. There are several throughout the city that are maintained through this program. Additional dispensers are at the Port of Bremerton Marina and on private properties around Bremerton. Bremerton provides over 170,000 bags per year and will continue this service in 2019.

Several large educational signs that support the “Puget Sound Starts Here” campaign and promote spills reporting were posted at city-owned facilities including parking garages, police and fire stations, and Public Works facilities. Other opportunities will be looked for in the upcoming year. A new natural yard care campaign is being developed through WSSOG.

A residential rain garden program was implemented in 2017 and funded through 2018, through an inter-local-agreement with Kitsap Conservation District for a targeted drainage basin. This effort provided the groundwork for a city-wide program. The program is scheduled to be expanded to provide rain gardens and other support to all areas within the city.

Phase II Municipal Stormwater Permit Activities

S5.C.1.c Measure the understanding and adoption of targeted behaviors

Public education activities are tracked and coordinated with West Sound Stormwater Outreach Group (WSSOG), and through information provided at events. Bremerton provides additional education and outreach efforts as opportunities arise and will continue this effort in 2019. Outreach efforts such as the Sinclair Inlet Cleanup (held in April and September), the Water Festival, public access TV, and other opportunities will be utilized in 2019 to expand the audience base. Current programs are being evaluated for effectiveness and new programs are in the conceptual phase for implementation in upcoming years.

Public Involvement and Participation S5.C.2

The City of Bremerton recognizes the inherent value of public involvement and participation in the Stormwater Program and has encouraged the public to become involved. Bremerton solicits ideas and opinions through the City's website, Utility bill messages, e-News emails to customers, and has provided a survey specific to stormwater on its website.

Bremerton's "Stormwater Permit Coordinator" coordinates the Bremerton portion of "Sinclair Inlet Cleanup", a volunteer cleanup effort supported by local agencies, business, and residents that was established in 1995. Stormwater educational materials and program information is provided and displayed at this event. Storm drain markers are installed during the cleanup and provided to Bremerton's schools and local neighborhoods upon request.

Public access TV and social media will be used in 2019 to encourage participation in program development and give residents ideas of how they can make a difference. Public involvement, participation, and partnerships for the Stormwater Program include LID guidance, assistance, and site assessments to identify opportunities for business and residents.

S5.C.2.a Public Participation for development and implementation of the SWMP
Create opportunities for the public to participate in the decision-making processes involving the development, implementation, and update of the Permittee's entire SWMP.

Public comment and participation is encouraged and accepted through Bremerton's website, customer email list, direct contact, customer response calls, the Permitting Center, and the Utility's customer service division. There is an online stormwater survey and the public can email comments or suggestions about Bremerton's stormwater program to the Stormwater Permit Coordinator. Efforts to get more public involvement will continue in 2019.

S5.C.2.b Post the Stormwater Management Plan (SWMP) on the City's website
The 2019 SWMP is posted on Bremerton's website at:
<http://www.bremertonwa.gov/DocumentCenter/View/1193>.

Illicit Discharge Detection and Elimination S5.C.3

An illicit discharge is one that violates water quality or sediment standards or is a significant contributor of pollutants to waters of the United States. This may include a discharge from any conveyance or system of conveyances used for collecting and conveying storm water runoff or a system of discharges from municipal separate storm sewers, including any spills not under the purview of another responding authority, into the MS4.

The City has an ongoing program to detect and remove illicit connections and discharges. Some of the oldest areas in Bremerton have combined sewers so

stormwater goes to the sanitary sewer system and is treated at the wastewater treatment plant before being discharged into Sinclair Inlet. Regardless of this fact, the consistent message in Bremerton is, “Only Rain Down the Drain” to simplify the message. Street sweepers have that message on the side of the equipment and the spill reporting phone number. The Illicit Discharge Detection and Elimination (IDDE) program started in 1995 has continued to evolve as regulations change and complies with the Permit requirements.

For 2019, the program will continue to monitor water quality at outfalls using the dry weather sampling plan and will respond to notifications and complaints when they are submitted. This year sampling and system inspections will work further up into the stormwater system to look for water quality issues and will respond as needed.

Environmental Tracking Systems Reports (ERTS) from Ecology are recorded and dispatched to trained staff from Public Works, or Fire Departments if needed. Procedures are in place to provide staff guidance on how to proceed with these incidents.

Spills occur and are reported in various ways to Public Works. The incident report and the amount of material dictate the City’s response level. Response is a coordinated effort with Public Works staff as lead responders for most events. Bremerton’s Fire Department responds to larger incidents with Puget Sound Naval Shipyard Hazmat Unit and Washington State Department of Transportation as backup resources. In 2018, Bremerton purchased several new spill kits, cleanup supplies, and distributed them throughout the city to various facilities. A portable vacuum system for cleanups was purchased and staff were trained how to use the equipment.

S5.C.3.a.i-vii Update MS4 maps

The stormwater system has been mapped with ESRI ArcMap (GIS) and details are continually added to the layers of the map by GIS technicians and field staff. This ongoing project is part of the Stormwater Utility functions and is working towards being a complete inventory of the system. New system features and components are added to the GIS map after they are constructed and verified by field inspections. Field crews carry tablets with them for quick access to system information and are able to update the system maps as changes occur or when errors are discovered. System development and support will continue in 2019. An important improvement to this system will be an upgrade to the GIS servers and network software that allows access to data from portable tablets. This will occur in early 2019.

S5.C.3.a.viii-ix Mapping of the City’s Stormwater System

Bremerton’s stormwater system map includes all outfalls, receiving waters, known stormwater facilities, tributary area, conveyance type, material, size, and land use. All connections between the city’s MS4 and other agencies are in the mapping system.

New stormwater treatment and flow control BMPs are added as construction is completed. The map is instantly available on tablets for field staff to use when needed.

All known public and private stormwater facilities and conveyances within the City limits are in the map or on various layers that can be turned on and off to make the map clear to view. The map has land use, topography, associated drainage areas, and areas that do not drain to surface waters which aides in illicit discharge detection and elimination. Drainage basins and sub-basin areas were updated in 2018 as part of the Stormwater Comprehensive Plan project.

Bremerton has a “Memorandum of Understanding” with Kitsap County to support ongoing stormwater system map sharing including: system details, features, and general information where our systems merge and supports IDDE tracking and source control.

Improvements to the maps, layers, and functionality of the system will continue in 2019.

S5.C.3.b Prohibit non-stormwater and illicit discharges to the MS4

Implement an ordinance or other regulatory mechanism to effectively prohibit non-stormwater, illicit discharges into the MS4 to the maximum extent allowable under State and Federal law.

Bremerton established the Stormwater Utility and supporting code in 1994. Bremerton Municipal Code (BMC) 15.04.190 PROHIBITED ACTS includes a list of prohibited discharges including non-stormwater, illegal discharges, and actions such as dumping, damaging, or removing facilities of the MS4. Violations under this section are punishable as a misdemeanor and escalating enforcement is authorized pursuant BMC Title 1.12 General Provisions, Code Enforcement.

In November of 2016, BMC, the City Comprehensive Plan, and associated sub-area plans were reviewed and updated to make LID the preferred and most commonly used method for stormwater management in new and redevelopment. The BMC is updated as needed to comply with changing requirements and is currently in compliance with the Permit. BMC updates will be made in 2019 to meet new Permit requirements to support program compliance and enforcement.

Bremerton has implemented an ordinance to effectively prohibit non-stormwater, illicit discharges into the MS4 to the maximum extent allowable under state and federal law.

Below are allowable and conditional discharges per BMC:

S5.C.3.b.i Allowable Discharges BMC 15.04.190.c:

- Air conditioning condensation;
- Discharges from emergency firefighting activities; (G3 reporting required as follow up)
- Diverted stream flows;

- *Flows from riparian habitats and wetlands;*
- *Footing drains;*
- *Foundation drains;*
- *Irrigation water from agricultural sources that is commingled with urban stormwater;*
- *Rising ground waters;*
- *Springs;*
- *Uncontaminated ground water infiltration as defined in 40 CFR 35.2005(20); and*
- *Uncontaminated pumped ground water.*

Stormwater pollution prevention efforts include standard operating procedures, and education for utility staff, and brochures addressing pollution prevention and water conservation for the public.

S5.C.3.b.ii Conditional non-stormwater discharges BMC15.04.190.d:

(d) Conditional Discharges. The following types of discharges shall not be considered illegal discharges, if they meet the stated conditions, or unless the City determines that the type of discharge, whether singly or in combination with others, is causing or is likely to cause pollution of surface water or groundwater:

- *Discharges from potable water sources, including water line flushing, hyperchlorinated water line flushing, fire hydrant system flushing, and pipeline hydrostatic test water. Planned discharges shall be de-chlorinated to a concentration of 0.1 ppm or less, pH-adjusted, if necessary, and volumetrically and velocity controlled to prevent re-suspension of sediments in the MS4.*
- *Discharges from lawn watering and other irrigation runoff. These shall be minimized through, at a minimum, public education activities (see section S5.C.1) and water conservation efforts.*
- *De-chlorinated swimming pool discharges. The discharges shall be de-chlorinated to a concentration of 0.1 ppm or less, pH-adjusted and re-oxygenized if necessary, volumetrically and velocity controlled to prevent re-suspension of sediments in the MS4. Swimming pool cleaning wastewater and filter backwash shall not be discharged to the MS4.*
- *Street and sidewalk wash water, water used to control dust, and routine external building wash down that does not use detergents. The Permittee shall reduce these discharges through, at a minimum, public education activities (see section S5.C.1.) and/or water conservation efforts. To avoid washing pollutants into the MS4, Permittees must minimize the amount of street wash and dust control water used. At active construction sites, street sweeping must be performed prior to washing the street.*
- *Other non-stormwater discharges. The discharges shall be in compliance with the requirements of a stormwater pollution prevention plan reviewed by the permittee, which addresses control of such discharges.*

These requirements are supported by standard operating procedures for City Staff and public education of residents and businesses.

S5.C.3.b.iii Address discharges identified as significant sources of pollutants

The Permittee shall further address any category of discharges in (i) or (ii) above if the discharges are identified as significant sources of pollutants to waters of the State.

Bremerton's IDDE program monitors the MS4 for potential cross connections and investigates enforces corrective actions as authorized by BMC 15.04 and the Permit water quality and sediment standards compliance requirements. Standard operating procedures for City Staff, along with public education of residents and businesses, work to prevent these discharges from occurring. Continued effort to prevent contamination of runoff, identify illicit discharges, and take corrective action will occur in 2019.

S5.C.3.b.iv Escalating enforcement procedures and actions

The ordinance or other regulatory mechanism shall include escalating enforcement procedures and actions.

BMC section 15.04.210 Violation Enforcement – Penalty, provides an escalating enforcement strategy up to and including civil financial penalties and/or confinement in Jail per BMC Title 1.12 General Provisions, Code Enforcement. In 2019, these codes and provisions will be reviewed and updated to be more effective.

S5.C.3.b.v The Permittee shall implement a compliance strategy

The compliance strategy includes informal compliance actions such as public education and technical assistance as well as the enforcement provisions of the ordinance or other regulatory mechanism.

Source control BMPs, referenced in Volume IV of the Stormwater Management Manual for Western Washington (SWMMWW), have been incorporated into Bremerton's development plan review, inspection, and operations programs by adopting Ecology's SWMMWW as the standard manual. Bremerton's stormwater facilities are maintained in accordance with maintenance standards required by the SWMMWW. Bremerton's ordinance, Stormwater Facility Maintenance Manual, and adopted manuals provide guidance, set standards and provide the compliance strategy.

S5.C.3.c - d Implement an IDDE program

Implement an ongoing program to detect and address non-stormwater discharges, including spills, and illicit connections into the MS4.

Bremerton's Illicit Discharge Detection and Elimination (IDDE) Program addresses this requirement and has an ongoing program to inspect stormwater system outfalls and private stormwater systems annually. This program is a key component to reduce stormwater pollution and the impact to local waters.

Bremerton is a predominantly urban area with 25 miles of marine shoreline and a large portion of Kitsap Lake. The urban portion of the City has residential, commercial, and industrial areas. The city also owns around 8,300 acres of the Union River and Gorst Creek watersheds. The Union River provides drinking water for Bremerton's residential and commercial customers.

Bremerton's IDDE program actively looks for non-stormwater discharges, spills, illicit connections, and illegal dumping into the MS-4. The Program has identified priority urban areas likely to have illicit discharges and has defined field assessment activities. All outfall locations have been documented and are screened for illicit discharges.

Bremerton has had an ongoing dry weather outfall reconnaissance inventory program since 1997. All outfalls discharging to marine and fresh waters have been inventoried, inspected, and screened. In 2019, designated stormwater outfalls will be inspected during dry weather and screened for illicit connections.

Bremerton utilizes a Customer Response Line (360-473-5920), 911, the Bremerton1 cell phone application, and the regional hotline KITSAP1 (360-337-5777), and Kitsap County's ClickFix which is monitored by Kitsap County Public Works. Bremerton's staff is dispatched by a central operator based on the information provided by the caller or application reporter. If the call is non-specific, the Customer Response Technician will go to the site and determine who needs to be dispatched for incident control and follow-up, in accordance with PW&U's policies. The responder's investigation report and resolution are recorded in a database with the call information to help identify areas of concern in the MS4. This system provides quick response for incidents involving the MS4 by dispatching the appropriate staff for the situation. All reports are logged and tracked from the initial report through resolution in a database.

For incidents that are beyond City staff capabilities, Bremerton alerts hazmat responders through 911 and other responsible agencies such as the Department of Ecology, Kitsap Department of Emergency Management, and Kitsap Health District regional partners.

Investigations generally follow the Ecology 2013 *Illicit Connection and Illicit Discharge Field Screening and Source Tracing Guidance Manual*. Bremerton staff are trained to recognize illicit discharge to the stormwater system and procedures are in place to report, investigate, document, and resolve incidents when found or reported.

The "Spills Happen, Help Us Find Them" graphic with reporting phone number is on City street sweepers and used in public outreach efforts.

S5.C.3.e-f Permitees shall train IDDE staff

Bremerton staff is responsible for identification, reporting, investigation, termination, cleanup of illicit discharges, including spills and illicit connections. Staff involved in this program are trained to conduct these activities. Presentations, round table discussions, training videos, and classes are tools employed to train staff. Follow-up training is

provided as needed to address changes in procedures, techniques, requirements or staffing. Training records are kept to document which staff are trained and who needs refresher training. Training needs will be reviewed and provided to staff in 2019.

Controlling Runoff from New Development, Redevelopment, and Construction Sites S5.C.4

Each Permittee shall implement and enforce a program to reduce pollutants in stormwater runoff to a regulated small MS4 from new development, redevelopment, and construction site activities. The program shall apply to private and public development, including roads.

Bremerton has reviewed and updated development requirements and applies these to both public and private projects. Road redevelopment projects, specific site re/development requirements for City projects are the same as those for private property endeavors for stormwater LID, Temporary Erosion Sediment Control (TESC), stormwater treatment, and retrofits.

S5.C.4.a Runoff from re/development and construction sites

Implement an ordinance or other enforceable mechanism that addresses runoff from new development, redevelopment, and construction site projects. The local program adopted to meet these requirements shall apply to all applications submitted on or after January 1, 2017 and shall apply to applications submitted prior to January 1, 2017, which have not started construction by January 1, 2022.

Bremerton's municipal code, City Comprehensive Plan, and the Stormwater Comprehensive Plan support Low Impact Development (LID) as the preferred method for re/development as of December 31, 2016. Ecology's Stormwater Management Manual for Western Washington (SWMMWW) is Bremerton's adopted manual as of December 31, 2016. Site development planning requires LID to be included in the development, and reviewed by staff for acceptance and approval. Tools to help developers comply with these requirements will continue to be developed and implemented in 2019. Technical assistance will be provided to fully implement and gain the most benefit from these new regulations.

S5.C.4.a.i Meet minimum requirements and technical thresholds of Appendix 1

The Minimum Requirements, thresholds, and definitions in Appendix 1 or a program approved by Ecology under the 2013 NPDES Phase I Municipal Stormwater Permit, for new development, redevelopment, and construction sites. Adjustment and variance criteria equivalent to those in Appendix 1 shall be included. More stringent requirements may be used, and/or certain requirements may be tailored to local circumstances through the use of Ecology-approved basin plans or other similar water quality and quantity planning efforts. Such local requirements and thresholds shall provide equal protection of receiving waters and equal levels of pollutant control to those provided in Appendix 1.

Bremerton's development and permitting codes and the adopted Stormwater Management Manual for Western Washington (SWMMWW) meet these requirements.

S5.C.4.a.ii Reduce discharge of pollutants to MEP, and satisfy State AKART

The local requirements shall include the following requirements, limitations, and criteria that, when used to implement the minimum requirements in Appendix 1 (or program approved by Ecology under the 2013 Phase I Permit) will protect water quality, reduce the discharge of pollutants to the MEP, and satisfy the State requirement under chapter 90.48 RCW to apply AKART prior to discharge:

- (a) Site planning requirements*
- (b) BMP selection criteria*
- (c) BMP design criteria*
- (d) BMP infeasibility criteria*
- (e) LID competing needs criteria*
- (f) BMP limitations*

Permittees shall document how the criteria and requirements will protect water quality, reduce the discharge of pollutants to the MEP, and satisfy State AKART requirements. Permittees who choose to use the requirements, limitations, and criteria above in the Stormwater Management Manual for Western Washington (SWMMWW), or a program approved by Ecology under the 2013 Phase I Permit, may cite this choice as their sole documentation to meet this requirement.

Bremerton adopted the Stormwater Management Manual for Western Washington (SWMMWW) as a guiding document and meets the requirement of S5.C.4.a.ii. All site plans are reviewed by the Development Engineer, Department of Community Development and other city staff as needed. The Development Engineer requires the appropriate stormwater Best Management Practices (BMPs), Temporary Erosion Sediment Control (TESC), Stormwater Pollution Prevention Plan (SWPPP) as required to meet the City's NPDES Permit and the BMC.

S5.C.4.a.iii Legal authority to inspect private stormwater facilities

The legal authority, through the approval process for new development and redevelopment, to inspect and enforce maintenance standards for private stormwater facilities approved under the provisions of this section that discharge to the Permittee's MS4.

Legal authority to inspect private stormwater facilities is provided in BMC Title 15.04.090, 15.04.100, 15.04.140, 15.04.160 and included in the permitting process.

S5.C.4.b Permitting process with site plan review, inspection and enforcement

The program shall include a permitting process with site plan review, inspection and enforcement capability to meet the standards listed in (i) through (iv) below, for both private and public projects, using qualified personnel (as defined in Definitions and

Acronyms). At a minimum, this program shall be applied to all sites that meet the minimum thresholds adopted pursuant to S5.C.4.a.i, above.

- i. Review of all stormwater site plans for proposed development activities.*

All site plans are reviewed by the Development Engineer, Department of Community Development and other city staff as needed. When thresholds are met, the Development Engineer requires the appropriate stormwater BMPs, TESC, SPCC, and SWPPP to meet the Permit and BMC requirements.

- ii. Inspect, prior to clearing and construction, all permitted development sites that have a high potential for sediment transport as determined through plan review based on definitions and requirements in Appendix 7 Determining Construction Site Sediment Damage Potential. As an alternative to evaluating each site according to Appendix 7, Permittees may choose to inspect all construction sites that meet the minimum thresholds adopted pursuant to S5.C.4.a.i, above.*

All sites are inspected prior to clearing, after a development permit request is submitted. Sites are assumed to have high potential for sediment transport, due to the soils in Bremerton, and required to utilize BMPs as identified in the site specific TESC plan as approved by the Development Engineer. If the BMPs are not sufficient to meet water quality standards alternative treatment or other options are required to be implemented up to and including treatment prior to entering the city's stormwater system or sanitary sewer system if permitted to do so.

- iii. Inspect all permitted development sites during construction to verify proper installation and maintenance of required erosion and sediment controls. Enforce as necessary based on the inspection.*

The Bremerton development permit process requires ongoing erosion control inspection. All sites are inspected at least 3 times per week during construction to verify proper installation, operation, and maintenance of TESC. Permit holders are notified of deficiencies and progressive enforcement is used when necessary. Bremerton's inspection staff are Certified Erosion and Sedimentation Control Lead (CESCL) and receive updated training as needed.

- iv. Inspect all permitted development sites upon completion of construction and prior to final approval or occupancy to ensure proper installation of permanent stormwater facilities. Verify that a maintenance plan is completed and responsibility for maintenance is assigned for stormwater treatment and flow control BMPs/facilities. Enforce as necessary based on the inspection.*

A final inspection of all stormwater system additions and features is completed for all projects. All stormwater attributes in the new system are cleaned and re-inspected prior to closing out the project. Permit procedures require a maintenance manual to be

submitted and approved for the project prior to occupancy. The manual provides a maintenance schedule the owner can follow for future maintenance needs and documentation. Ownership and maintenance responsibility is assigned at final approval through a recorded maintenance covenant for large commercial or Home Owners Associations. Bremerton's municipal code supports and further defines system maintenance and operation responsibilities.

- v. *Compliance with the inspection requirements in (ii), (iii) and (iv) above, shall be determined by the presence and records of an established inspection program designed to inspect all sites. Compliance during this permit term shall be determined by achieving at least 80% of scheduled inspections.*

All active construction sites are regularly inspected three times per week throughout the year. Inactive sites are monitored for erosion, sediment, and trash accumulation year round. All locations are monitored during rainfall events and owners are notified if TESC needs to be improved or maintained. Bremerton's inspector uses a tablet with access to the City's GIS system to record these inspections in an application developed by the city. If that system is not functioning they will document the inspection in a book specifically for site inspections and input the information into the digital record when available.

- vi. *An enforcement strategy shall be implemented to respond to issues of non-compliance.*

An enforcement strategy is in place and supported by BMC 15.04, BMC 15.04.020 Adoption of Manuals where the SWMMWW is the guidance document for stormwater requirements, BMC 15.04.210 Violation Enforcement – Penalty and Chapter 1.04 Code Enforcement.

S5.C.4.c Adequate long term Operation and Maintenance of stormwater facilities
The program shall include provisions to verify adequate long-term operation and maintenance (O&M) of stormwater treatment and flow control BMPs/facilities that are permitted and constructed pursuant to (b) above. The provisions shall include:

- i. *Implementation of an ordinance or other enforceable mechanism that clearly identifies the party responsible for maintenance, requires inspection of facilities in accordance with the requirements in (ii) through (iv) below, and establishes enforcement procedures.*

Bremerton code, recorded maintenance covenants, plats, and agreements clearly identify the party responsible for maintenance. BMC Chapter 15.04.160 Construction and maintenance of private stormwater facilities, provides authority for access and inspection of private systems and provides regulatory enforcement support.

- ii. *Each Permittee shall establish maintenance standards that are as protective or more protective of facility function than those specified in Chapter 4 of*

Volume V of the SWMMWW. For facilities which do not have maintenance standards, the Permittee shall develop a maintenance standard.

Bremerton adopted the SMMWW which defines maintenance standards that meet this requirement. Proprietary treatment systems use the manufacturer's recommended inspection and maintenance frequency guidelines. In 2019, Bremerton will review the current systems specifications and complete checks to verify that these standards are sufficient to protect water quality.

- iii. Annual inspections of all stormwater treatment and flow control BMPs/facilities that discharge to the MS4 and were permitted by the Permittee according to S5.C.4.b, including those permitted in accordance with requirements adopted pursuant to the 2007-2012 Ecology municipal stormwater permits, unless there are maintenance records to justify a different frequency.*

Bremerton inspects all temporary and permanent facilities during construction. Permanent treatment and flow control BMPs/facilities are inspected prior to final approval of the constructed system. City staff or the property owner completes post construction inspections annually.

- iv. Inspections of all permanent stormwater treatment and flow control BMPs/facilities and catch basins in new residential developments every six months until 90% of the lots are constructed (or when construction is stopped and the site is fully stabilized) to identify maintenance needs and enforce compliance with maintenance standards as needed.*

All active construction sites are inspected during dry and wet weather at least three times per week. Inactive sites are also monitored regularly for erosion and sediment control concerns during rainfall, and trash accumulation year around. Maintenance of these systems is required when the system feature meets threshold levels and when vegetation control is needed.

- v. Compliance with the inspection requirements in (iii) and (iv) above shall be determined by the presence and records of an established inspection program designed to inspect all sites. Compliance during this permit term shall be determined by achieving at least 80% of scheduled inspections.*

Inspections are completed regularly for construction projects and issues are addressed when discovered. Transition from paper records to a database is in progress. Construction phase and post construction work is inspected and documented by City staff using a GIS/data enabled tablet which is accessible on the City's network by authorized staff.

- vi. *Unless there are circumstances beyond the Permittee's control, when an inspection identifies an exceedance of the maintenance standard, maintenance shall be performed:*
- *Within 1 year for typical maintenance of facilities, except catch basins.*
 - *Within 6 months for catch basins.*
 - *Within 2 years for maintenance that requires capital construction of less than \$25,000.*

Maintenance on City-owned facilities is to be completed within 30 days for all sites found to reach or exceed the maintenance standard or in need of vegetation control and general housekeeping efforts. Privately owned systems are given more time but doesn't exceed the timeline referenced above in "vi".

- vii. *The program shall include a procedure for keeping records of inspections and enforcement actions by staff, including inspection reports, warning letters, notices of violations, and other enforcement records. Records of maintenance inspections and maintenance activities shall be maintained.*

Records of inspections and enforcement actions for privately owned and operated systems are kept on file. Transfer from paper to digital records is an ongoing process that will continue on 2019. Warning letters, notices of non-compliance, stop work orders for construction sites are kept on-file with the city's development engineering group.

S5.C.4.d "Notice of Intent for Construction Activity"

- d) *The program shall make available as applicable copies of the "Notice of Intent for Construction Activity" and copies of the "Notice of Intent for Industrial Activity" to representatives of proposed new development and redevelopment. Permittees shall continue to enforce local ordinances controlling runoff from sites that are also covered by stormwater permits issued by Ecology.*

An information sheet with the Ecology website address for the "Notice of Intent" is provided to those seeking a development permit by DCD and Engineering at the City's Permit Counter. Sites that are covered by other permits are required to comply with Bremerton's stormwater requirements.

S5.C.4.e "Stormwater training for development staff "

- e) *Each Permittee shall ensure that all staff whose primary job duties are implementing the program to control stormwater runoff from new development, redevelopment, and construction sites, including permitting, plan review, construction site inspections, and enforcement, are trained to conduct these activities. Follow-up training shall be provided as needed to address changes in procedures, techniques, or staffing. Permittees shall document and maintain records of the training provided and the staff trained.*

Engineering and DCD staff are trained to complete their respective job duties. Staff whose position supports implementing the requirements that control stormwater runoff, pre and post construction, are trained for those specific functions. Field inspectors are provided Certified Erosion Sediment Control Lead (CESCL) training and certification. Staff that reviews plats, plan submittals, and associated development projects are educated in LID practices and techniques, regulations, plan review, and SWPPP development through in-house exercises, and stormwater conferences with specific workshops. This additional education provides a qualified work team that can also assist developers and property owners who wish to improve their property. 2019 will include more stormwater program review, and implementation training support.

S5.C.4.f " Low impact development (LID) code-related requirements "

- f) *Low impact development (LID) code-related requirements.*
- i) *No later than December 31, 2016, Permittees shall review, revise and make effective their local development-related codes, rules, standards, or other enforceable documents to incorporate and require LID principles and LID BMPs.*
- The intent of the revisions shall be to make LID the preferred and commonly-used approach to site development. The revisions shall be designed to minimize impervious surfaces, native vegetation loss, and stormwater runoff in all types of development situations. Permittees shall conduct a similar review and revision process, and consider the range of issues, outlined in the following document: Integrating LID into Local Codes: A Guidebook for Local Governments (Puget Sound Partnership, 2012).*

LID is fully integrated and supported in Bremerton's development codes, standards, rules, and adopted manuals, effective December 31st, 2016. LID as the preferred and commonly used approach to site development provides developers with options that protect and improve storm water quality.

- ii) *Each Permittee shall submit a summary of the results of the review and revision process in (i) above with the annual report due no later than March 31, 2017. This summary shall include, at a minimum, a list of the participants (job title, brief job description, and department represented), the codes, rules, standards, and other enforceable documents reviewed, and the revisions made to those documents which incorporate and require LID principles and LID BMPs. The summary shall include existing requirements for LID principles and LID BMPs in development-related codes. The summary shall be organized as follows:*
- (a) Measures to minimize impervious surfaces;*
(b) Measures to minimize loss of native vegetation; and
(c) Other measures to minimize stormwater runoff.

These documents were submitted with the 2016 Annual Phase II Stormwater report to Ecology.

g. Watershed-scale stormwater planning

The objective of watershed-scale stormwater planning is to identify a stormwater management strategy or strategies that would result in hydrologic and water quality conditions that fully support “existing uses,” and “designated uses,” as those terms are defined in WAC 173-201A-020, throughout the stream system.

Kitsap County and City of Bremerton are both Phase II Permittees and work closely with other cities and agencies on the Kitsap Peninsula to coordinate stormwater pollution prevention and reduction. Preparation for city-wide watershed planning has begun and will continue with issuance of the new Permit in August of 2019. Kitsap County and Port Orchard will be included in the process where runoff intermingles before reaching waters of the state. Planning is underway for Ostrich and Oyster Bays and other watersheds will be added as we move forward. Certain areas between Kitsap County and Bremerton will benefit from smaller watershed scale restoration and preservation planning efforts that are identified in future CIP projects. One planning project for the Oyster and Ostrich Bay Watershed is moving forward as a Near Term Action with the Puget Sound Partnership Action Agenda. As projects are identified, they will be included in the Stormwater Program’s Capital Improvement Program (CIP) Plan. Although not directly associated with stormwater, the WRIA 15 Watershed Restoration and Enhancement planning and implementation will have positive impact to aquifers, drinking water and stream flows. Bremerton’s Water Resources and Community Development are actively involved with these processes.

Pollution Prevention and Operation and Maintenance for Municipal Operations

S5.C.5

Each Permittee shall implement an operations and maintenance (O&M) program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.

Bremerton has an O&M program with the ultimate goal of preventing or reducing pollutant runoff from municipal operations. The maintenance program is divided into three groups: Stormwater Maintenance, Facilities Maintenance, and Parks Maintenance. Each group has their own system components and stormwater facilities to operate and maintain. The groups are trained to provide maintenance service for each of their facilities and features.

S5.C.5.a Establish maintenance standard protective as chap 4 / Vol. V, SWMMWW
Permittee shall implement maintenance standards that are as protective, or more protective, of facility function than those specified in Chapter 4 of Volume V of the Stormwater Management Manual for Western Washington.

Bremerton adopted and enforces the 2012 SMMWW, as amended in 2014, standards which meets this requirement.

S5.C.5.a.ii Maintenance requirements identified during inspections

Unless there are circumstances beyond the Permittee's control, when an inspection identifies an exceedance of the maintenance standard, maintenance shall be performed:

- *Within 1 year for typical maintenance of facilities, except catch basins.*
- *Within 6 months for catch basins.*
- *Within 2 years for maintenance that requires capital construction of less than \$25,000.*

Bremerton completes maintenance on its permanent stormwater treatment and flow control BMPs/facilities annually or as needed based on inspection results. When deficiencies are found they are corrected immediately or within the next 30 days.

S5.C.5.b Inspection requirements, other than catch basins for City systems

Annual inspection of all municipally owned or operated storm water treatment and flow control facilities other than catch basins. Take appropriate maintenance actions in accordance with section S5.C.5.a.

Bremerton annually inspects of all municipally owned or operated permanent stormwater treatment and flow control BMPs/facilities. Appropriate maintenance actions, in accordance with the adopted maintenance standards, are completed as needed. There are several different types of treatment, and quantity control systems installed in the system so the materials needed to complete repairs and maintenance is getting more complex. In 2019 a complete inventory of necessary materials to have on hand will be developed and stocked.

S5.C.5.c Check stormwater facilities after storms greater than 3.5" in 24 hours

Spot checks of potentially damaged permanent stormwater treatment and flow control BMPs/facilities after major storm events (24 hour storm event with a 10 year or greater recurrence interval). If spot checks indicate widespread damage/maintenance needs, inspect all stormwater treatment and flow control BMPs/facilities that may be affected. Conduct repairs or take appropriate maintenance action in accordance with maintenance standards established above, based on the results of the inspections.

Bremerton routinely checks permanent stormwater treatment and flow control BMPs/facilities during and after large storms to verify facility function and integrity. Maintenance and/or repairs are completed as needed to maintain facility operation and functionality.

S5.C.5.d Inspection of catch basins and inlets owned by the Permittee

Inspect all catch basins and inlets owned or operated by the Permittee at least once no later than August 1, 2017 and every two years thereafter. Clean catch basins if the inspection indicates cleaning is needed to comply with maintenance standards established in the Stormwater Management Manual for Western Washington. Decant water shall be disposed of in accordance with Appendix 6 Street Waste Disposal.

Catch basins, inlets, treatment facilities, and ponds, are cleaned annually. Bremerton has a decant facility, connected to the sanitary sewer system. Sediment, in decant water, is allowed to settle and then water is discharged to the sanitary sewer system and treated at the wastewater treatment plant. All catch basin sediment, debris and street sweeping spoils are disposed of in accordance with Department of Ecology's Dangerous Waste Regulations (Chapter 173-303-016 WAC). The decant facility is operated under a permit and annually inspected by the Kitsap Public Health District.

S5.C.5.e Compliance with inspection requirements criteria

Compliance with the inspection requirements shall be determined by the presence of an established inspection program designed to inspect all sites and achieving at least 95% of inspections.

Inspection of the main stormwater system components is completed during maintenance and recorded in the City's GIS map throughout the year. Deficiencies are identified and scheduled for repair based on significance of the issue. A GIS based map for all city stormwater assets is available to staff on Apple iPad® devices. In 2019, maintenance, inspections, correspondence documentation, and tracking will continue to be incorporated into the GIS system databases. Facilities Division and Parks Department stormwater assets are inspected and documented on paper files and retained by those offices. Private stormwater systems are inspected by the Public Works Compliance Division. All correspondence and reports are kept in both paper and electronic files attached to a GIS layer. Review of these processes will be completed in 2019 and changes made where needed to improve efficiency.

S5.C.5.f Implement practices to reduce stormwater impacts from City properties

Implement practices, policies and procedures to reduce stormwater impacts associated with runoff from all lands owned or maintained by the Permittee, and road maintenance activities under the functional control of the Permittee. Lands owned or maintained by the Permittee include, but are not limited to, streets, parking lots, roads, highways, buildings, parks, open space, road right-of-ways, maintenance yards, and stormwater treatment and flow control BMPs/facilities. The following activities shall be addressed:

- *Pipe cleaning*
- *Cleaning of culverts that convey stormwater in ditch systems*
- *Ditch maintenance*
- *Street cleaning*
- *Road repair and resurfacing, including pavement grinding*

- *Snow and ice control*
- *Utility installation*
- *Pavement striping maintenance*
- *Maintaining roadside areas, including vegetation management*
- *Dust control*
- *Application of fertilizers, pesticides, and herbicides according to the instructions for their use, including reducing nutrients and pesticides using alternatives that minimize environmental impacts*
- *Sediment and erosion control*
- *Landscape maintenance and vegetation disposal*
- *Trash and pet waste management*
- *Building exterior cleaning and maintenance*

Bremerton is a member of the Regional Road Maintenance Endangered Species Act (RRMP ESA) Program, since December 2001, and has implemented the program elements in its activities. The program includes all the activities listed under section S.5.C.5.f and has a training element. A copy of the Regional Road Maintenance ESA program guidelines can be found at:

<https://kingcounty.gov/depts/local-services/roads/endangered-species-act-reports.aspx>

Bremerton has policies and procedures in place for building and grounds maintenance, including parks, trash management, and sediment control. Only qualified personnel, in compliance with policies, use fertilizers, pesticides, and herbicides. Good housekeeping practices are in place at all City owned properties and facilities. Municipal operations and maintenance staff are trained to use pollution prevention techniques and practices to help reduce and prevent pollution of stormwater runoff. All city streets are swept at least twice per year with major roadways being swept twice per week. Sweeping spoils are disposed of in accordance with Department of Ecology's Dangerous Waste Regulations (Chapter 173-303-016 WAC). During the fall months and into the winter, sweepers are actively collecting leaves and debris 16 hours a day, five days per week or as necessary to keep catch basins clear for stormwater which also protects water quality. In 2019, these programs and training will be reviewed to determine areas where improvements can be made and to refresh staff knowledge.

Bremerton will implement a small sweeper operation program in August of 2019. The new sweeper will be used on sidewalks, bridge walk paths, public commons areas, and places where the larger street sweepers cannot access. This program will further reduce pollutants coming from areas currently cleaned by hand. This will enhance the sweeping program and provide more efficiency to the program and expand environmental benefits.

S5.C.5.g Implement an ongoing training program for employees

Implement an ongoing training program for employees of the Permittee whose primary construction, operations or maintenance job functions may impact stormwater quality. The training program shall address the importance of protecting water quality, operation

and maintenance standards, inspection procedures, selecting appropriate BMPs, ways to perform their job activities to prevent or minimize impacts to water quality, and procedures for reporting water quality concerns. Follow-up training shall be provided as needed to address changes in procedures, techniques, requirements, or staffing. Permittees shall document and maintain records of training provided and the staff trained.

Bremerton has a comprehensive training program that works to prevent pollution at the source. A well-trained workforce reduces or prevents pollution of stormwater runoff and degradation of water quality from City operations and maintenance activities. Staff are provided with training to obtain certifications for CESCL, LID planning and construction, as well as internal training for operations and maintenance staff for basic stormwater pollution prevention. Several resources have been made available to City staff for training that include intranet video training for: IDDE; construction site stormwater control and BMPs; and stormwater pollution prevention. All Bremerton inspectors are CESCL certified as well as Public Works supervisors and specific Parks Department staff.

S5.C.5.h Implement a SWPPP for all equipment maintenance or storage yards
Implement a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the Permittee in areas subject to this Permit that are not required to have coverage under the General NPDES Permit for Stormwater Discharges Associated with Industrial Activities or another NPDES permit that authorizes stormwater discharges associated with the activity. A schedule for implementation of structural BMPs shall be included in the SWPPP. Generic SWPPPs that can be applied at multiple sites may be used to comply with this requirement. The SWPPP shall include periodic visual observation of discharges from the facility to evaluate the effectiveness of the BMP.

SWPPPs have been developed and implemented for all maintenance, and material storage facilities. City owned facilities and Parks also have SWPPs to define requirements for good housekeeping measures and inspections. Stormwater system inspection and maintenance are included in SWPPPs activities which are documented by assigned staff. The Oyster Bay Public works Facility SWPPP was updated in 2016 and other plans will be reviewed and updated as needed in 2019.

S5.C.5.i Maintain records of inspections and maintenance or repair activities
Implement Stormwater Pollution Prevention Plans (SWPPP) for all heavy equipment maintenance or storage yards and material storage facilities owned or operated by Bremerton.

The Oyster Bay Public Works Fleet Maintenance Facility SWPPP was updated in 2016. Site inspections are completed by Facilities staff and maintenance is requested when needed through a work order system. Stormwater catch basins, and treatment facilities, are maintained by Stormwater Maintenance staff when requested.

S5.C.5.j Record of inspections and maintenance requirements
Maintain records of inspections and maintenance or repair activities conducted by the Permittee.

Facilities, Parks, Compliance, and Stormwater divisions complete inspections and document the results for their locations. Work orders are generated and maintenance is completed by Stormwater Maintenance staff as requested. This program and tracking will be reviewed in 2019 to find more efficient methods to coordinate inspections and maintenance requests.

Activities Planned for 2019

Stormwater Comprehensive Plan Update

Bremerton will complete the update of its Stormwater Comprehensive Plan by May of 2019. The plan includes:

- Updated capital improvement plan with treatment retrofit opportunities,
- Inventory of surface water and known water quality problems,
- Inventory of salmon migration and habitat barriers within the city limits,
- Gap analysis of the stormwater program and NPDES Stormwater Permit,
- Stormwater Permit compliance program elements,
- Overall review of Bremerton's stormwater program.
- TMDL activities as required by the Sinclair Dyes Inlets Fecal Coliform

Stormwater Management Plan (SWMP)

The SWMP is a planning and implementation tool that provides directives, guidance, goals, and defines program objectives for the coming year. Operation, maintenance, and inspections of the infrastructure strive to comply with the Phase II Municipal Stormwater Permit requirements and prolong the operational life of the existing system assets. New and redevelopment project review, and permitting codes that prefer the use of Low Impact Development (LID), retention of runoff and treatment, work to reduce the impact of these actions on waters that surround Bremerton.

Tracking costs to implement the Stormwater program is an ongoing practice that provides tools to evaluate the efficiency and effectiveness of the current program. Actions and activities, that improve and protect water quality around Bremerton are supported by local residents and elected officials. Internal and external coordination helps improve the program's positive impact in the area, benefits the local environment and community.

Public Education and Outreach

The public education and outreach program is the cornerstone to gaining support and helps to develop a foundation for the stormwater program. Pollution prevention

education identifies activities and actions that have a negative impact on our environment and local waters. Through education, we can provide safe and effective methods to accomplish activities such as landscaping, disposal of wastes, pet waste management, car washing, etc. that minimize impacts on our environment. Changing behaviors that impact our environment and local waters is how the program will be successful in achieving its goals. To this end, Bremerton is a partner in the West Sound Stormwater Outreach Group (WSSOG), a regional organization of Kitsap County and local cities. Consistent messages and campaigns are developed and promoted region-wide to support local and national stormwater program goals. WSSOG education efforts are evaluated by professional staff and consultants based on surveys and behavior change results.

Bremerton has installed pet waste bag dispensers at 50 locations and will continue to provide bags and garbage service to the locations in 2019. Additional dispensers will be installed as requested by citizens. This is a very successful program and results in tons of pet waste being collected and disposed of properly.

Public Involvement

Bremerton provides opportunities for the public to participate in SWMP decision-making and responds to questions and concerns when presented. The SWMP is posted on the City's website along with the annual report for the previous calendar year.

The Stormwater Comprehensive Plan Update started in 2016 with expected completion in 2019. Public input was used to inform the plan development, identify concerns, define areas where issues may exist, and allow the plan to address these issues.

Illicit Discharge Detection and Elimination (IDDE)

The enforceable mechanism, Bremerton Municipal Code, prohibits illicit discharges and other activities which can degrade our local waters and stormwater system infrastructure. Staff is trained to recognize illicit discharges, how to respond, control, and eliminate these from the stormwater systems. Signs were installed on the street sweepers with the spill hotline and more signs will be installed as opportunities are identified.

The City will continue to promote the "Spills Happen, Help Us Find Them" message and customer response hotline in 2019. Stormwater system, other utility, land use, and transportation GIS maps are accessible to Public Works staff via tablets. Direct and portable access to the City maps support quick response to spills or accidents when needed. These tools will continue to be developed and distributed for staff use.

IDDE refresher training will be provided to staff whose job is to identify illicit discharges, track and correct these problems. The documentation system for all customer complaints and IDDE issues is working well so incidents can be recalled as needed. Changes in the new Municipal Stormwater Permit may require the development of a new template and recording system. This will be monitored and implemented if needed.

Control Runoff from New Development, Redevelopment & Construction Sites

Development Engineering and Community Development enforce municipal codes that define construction and post-construction runoff control measures to prevent contaminated runoff.

Development activities such as plats, short plats, new site development and redevelopment that trigger thresholds, are required to provide stormwater control measures, install/use BMPs, use LID techniques and practices to meet Permit requirements. Trained staff ensure that plan submittals identify the use of appropriate measures to meet water quality and sediment standards by implementing controls and BMPs that prevent sediment laden runoff from entering the stormwater system.

Active construction sites are inspected once per week (at minimum), during and after large rain events or as needed to enforce compliance with the approved Temporary Erosion Sediment Control (TESC) plan. Exceedance of water quality or sediment standards requires modification of BMPs through the adaptive management process or the project will be stopped by notice from the City. Projects that hold a Construction Stormwater General Permit, issued by Ecology, will be checked for appropriate installation and maintenance of BMPs, good housekeeping practices, and worked with if issues are identified or arise during rainfall. If they are unresponsive, the city will notify Ecology of the issue/s through the Environmental Report Tracking System (ERTS). Ecology inspectors will respond to the report and work with the developer until the issue is resolved. Bremerton strives to work with developers in an effort to meet all permit requirements using the most cost effective approaches.

Good housekeeping practices are enforced for construction sites and all locations in Bremerton through inspections and code enforcement. Ecology's SWMMWW was adopted in BMC 15.04, November of 2016, as the standard for temporary erosion and sediment control BMPs. Bremerton's Engineering Design and Construction Standards were updated to reflect these requirements and provides a good tool for developers. Additional tools will be developed in 2019 to provide guidance for developers, and staff who are involved with stormwater pollution prevention and general construction. Refresher training and program review will be completed in 2019.

Municipal Pollution Prevention, Operation, and Maintenance

Three divisions are responsible for stormwater system maintenance and operation: Public Works Stormwater (PWS), Facilities, and Parks Department. PWS maintains all stormwater infrastructure in the right-of-way and provides services for Facilities and Parks when requested through work orders. Facilities inspect and maintain all city owned properties with the exception of Park's facilities. Parks inspects and maintains their stormwater systems. When maintenance is needed that requires vacuum truck, jetting, or repairs that these divisions can't complete, a work order request is submitted to PWS for the necessary action.

Facilities and Parks have their own facility SWPPPs. These include the following:

- Site map of the stormwater system, with spill kit locations, inventory of stormwater facilities and maintenance requirements,
- Documents to track inspections and maintenance activities,
- Spill control correction and countermeasures (SCCC) plan,
- Good housekeeping measures.

Bremerton operates two jet vacuum trucks and two sweepers throughout the year to maintain the stormwater system and protect runoff water quality. Collection of leaves, sediment, and trash from the road surface is an efficient method to protect water quality by reducing contaminants at the source.

PWS crew also maintain the sanitary sewer system so time is split between the two systems. Maintenance is completed in cycles and as needed to keep the system operating. All city owned catch basins, ditches, and treatment facilities within the right-of-way will be cleaned by fall of this year. City staff are trained using on-demand videos posted to the City's intranet. Topics include good housekeeping practices, recognizing illicit discharges, preventing runoff contamination from job sites, and how to cleanup spills. Most of the supervisors and crew lead's for Streets, Parks, and Facilities are certified CESCLs. Development and Engineering staff are also certified CESCLs and trained as needed to perform their jobs.

2019 will be an active year with continued implementation of MS4 maintenance, annual inspections of stormwater treatment and flow control BMPs/facilities, spot checks, and implementation of SWPPPs for municipal properties, and facilities. Staff training will focus on changes in the municipal code and LID requirements.

Compliance with Total Maximum Daily Load (TMDL) Requirements

Prioritized system maintenance and inspections of private stormwater facilities for systems discharging into Oyster and Ostrich Bays will be performed in 2019. Pet waste bag dispensers and trash cans have been installed throughout the City at sensitive locations for a total of 50 City-owned stations and approximately 18 additional units that are maintained by private citizens. Additional dispensers will be installed this year in ROW and city-owned properties as needed.

City of Bremerton TMDL Requirements and Actions in 2019

Western Washington Phase II Municipal Stormwater Permit Appendix 2 Total Maximum Daily Load (TMDL) Requirements	
Name of TMDL	Sinclair and Dyes Inlets Fecal Coliform Bacteria Total Maximum Daily Load
Document(s) for TMDL	<i>Sinclair and Dyes Inlets Fecal Coliform Bacteria Total Maximum Daily Load (TMDL) Water Quality Implementation Plan</i> , In Draft, Ecology Publication No. 11-10-051. <i>Fecal Coliform Model Verification Sampling Plan (Winter 2004)</i> , February 19, 2004. http://www.ecy.wa.gov/programs/wq/tmdl/sinclair-dyes_inlets/fc_tmdl_studyplan_final_draft_print.pdf

Location of Original 303(d) Listings	Dyes Inlet & Port Washington Narrows (WA-15-0020) Gorst Creek (WA-15-4000) Sinclair Inlet (WA-15-0040)
Area Where TMDL Requirements Apply	These requirements apply to areas served by MS4s listed below within the TMDL coverage area.
Parameter(s)	Fecal coliform bacteria
EPA Approval Date	July 5, 2012
MS4 Permittee:	Phase II Permit: City of Bainbridge Island, WAR04-5503; City of Bremerton, WAR04-5507; City of Port Orchard, WAR04-5536; Kitsap County, WAR04-5546

City of Bremerton (requirement language from the NPDES Permit)

- *Designate areas discharging via MS4 to Phinney and Ostrich Bay Creeks, to the eastern shoreline of Oyster Bay near DOH site 487, and to shorelines along Port Washington Narrows as the highest priority areas for illicit discharge detection and elimination routine field screening and, beginning no later than August 1, 2014 implement the schedules and activities identified in S5.C.3 of the Western Washington Phase II permit for response to any illicit discharges found.*

- *By December 31, 2016, review and, if necessary, increase the frequency of inspection and cleanout of catch basins (under S5.C.4 and 5 of the Western Washington Phase II permit) to maintain catch basin sediment levels below 60 percent full. Focus on MS4 areas that drain to Phinney and Ostrich Bay Creeks, to the eastern shoreline of Oyster Bay near DOH site 487 and to shorelines along Port Washington Narrows.*

- *Install and maintain pet waste education and collection stations at municipal parks and other Permittee owned and operated lands adjacent to stream and marine shorelines. Focus on locations where people commonly walk their dogs.*

Water Quality Improvement Projects

In 2019, several stormwater treatment retrofit projects to help address TMDL goals in the Oyster and Ostrich Bays are being designed or constructed. The selected treatment systems provide basic, enhanced, and phosphorus treatment for stormwater prior to discharging into Oyster Bay or Ostrich Creek. Two wastewater improvement projects are being designed, one to replace a beach main sewer in Oyster Bay, and the second will provide sewer for the West Hills area which is currently on septic systems, with many failing.

IDDE Actions:

Areas discharging, via MS4, to Phinney and Ostrich Bay Creeks, Oyster and Ostrich Bays, and to shorelines along Port Washington Narrows are the highest priority areas for IDDE routine field screening. A series of 10 Modular Wetland Treatment Systems were installed as part of the Lebo Community Boulevard Improvement project. In 2019, three stormwater treatment systems will be installed on Marine Drive and one on Kitsap

Way during the Marine Drive Stormwater Treatment Retrofit construction project. Stormwater treatment will be provided at 15 locations when the designed treatment retrofit project for Ostrich Creek is constructed in 2020.

Bremerton has had an ongoing dry weather outfall reconnaissance inventory program since 1997. Several cross connections were discovered and corrected prior to 1999. All outfalls discharging to marine and fresh waters, from 8" and up in size, are inventoried, inspected, and tested for contaminants. Outfalls will again be inspected and screened for illicit connections during dry weather in 2019. If an illicit discharge is found, Bremerton will follow the IDDE program protocols to locate the source of the contaminant and correct the problem.

Kitsap Public Health works with Bremerton Public Works (BPW) through their Pollution Identification and Correction program (PIC). When they locate a site with elevated fecal coliform bacteria they notify BPW with site details and sample results. The IDDE program then works to identify the source and correct the problem.

Maintenance Actions:

City owned stormwater systems that drain to Phinney and Ostrich Bay Creeks, Oyster Bay and to shorelines along Port Washington Narrows are cleaned annually. Privately owned systems are required to meet the same standards. Maintenance standards are enforced for catch basins and facilities to reduce the production of fecal coliform and protect water quality. Ecology's SWMMWW, as amended in 2014, is the reference manual, and establishes the maintenance standard and frequency.

Pet waste

Pet waste bag dispensers have been installed throughout Bremerton in Parks and areas where pets are walked. The majority are in parks and areas along water ways. There are currently 50 at high priority locations throughout Bremerton. The City provides over 170,000 bags per year which has been steadily increasing since the first dispenser was installed several years ago. Trash receptacles are located close to the bag dispensers to provide a safe disposal place for the pet waste.

Wastewater

Bremerton is coordinating efforts with Kitsap Public Health District and Kitsap County Public Works to review areas where sanitary sewer can be extended to provide service for properties with failing septic systems. This will help reduce fecal coliform contamination in these areas.

Reporting and record keeping

Records related to the permit will be kept for at least five years as required by the Permit.

Capital Improvement Plan – 2019 Projects

Project Name	Project Stage	Summary Details
Eastpark Stormwater Outfall	Final mitigation	Replaced outfall required shoreline work and mitigation.
Pine Basin Watershed Storm Sewer Improvements (PWTF)	PWTF Contract, start design	Includes Pine Rd Basin outfall, new SW system on Robin to from Dibb to Sheridan Rd, and Stephenson Creek inlet structure
Ostrich Creek Culvert Improvements (PWTF)	Design, work with WSDOT, Tribe, WDFW	Brentwood/Kitsap Way/Price Rd culvert replacements
Ostrich Bay Creek Stormwater Treatment Retrofit construction	Final design approval from Ecology	Complete design by 1/2020, construction summer of 2020
Chester Stormwater Outfall Reconstruction and Diffuser	Scope, RFP, consultant selection	Design the replacement of the outfall
Kitsap Lake Safe Routes to School Stormwater upgrades	Finalize design, RFP, construction	New stormwater system with roads improvements
Kitsap Lake Stormwater Treatment Retrofit Design	Design of treatment systems in 2020/21	Treatment of stormwater and phosphorus reduction
E 11 th Street SW treatment retrofit Ecology SFAP and Perry Ave TIB grants to rebuild streets and stormwater system w/treatment	SFAP grant contract, consultant selection, design	Treatment retrofit on E 11 th and Perry Ave from E18th to Pitt Ave
Marine Drive and Kitsap Way Retrofit - Modular Wetlands Treatment Systems (MWS)	Final design, approval from Ecology, & construction in 2019	Install 3 MWS on Marine Dr, and 1 on Kitsap Way to improve water quality in Oyster Bay.
Purchase Compact High Efficiency Vacuum Sweeper for sidewalks/limited access areas	Purchase sweeper and implement program	Improved maintenance and efficiency cleaning limited access areas and staff time
Schley Canyon Culvert	Mitigation	
Pine Road Storm Interceptor condition inspection	Visual and camera inspection of 10,500 feet of trunk line	Inspect Pine Rd Basin conveyance system
Kitsap Lake Invasive Aquatic Species Control	Grant contract, select consultant, begin evaluation	Determine extent of problem and implement first round of control
Environmental Mitigation for Fish Passage	Identify areas and develop scope/cost	Address fish barriers, habitat issues, priorities

2019 Stormwater Permit

The current NPDES SW Permit is scheduled to expire in July 2019. Ecology has issued a new draft SW Permit for the 2019-2024 period that includes a number of new additional requirements. This section summarizes these new requirements and potential operational and financial impacts.

Comprehensive Stormwater Planning

This new section requires permittees to apply a watershed-scale approach to stormwater management. This reflects two key Ecology findings (2018a):

- Water quality and aquatic habitat in western Washington State cannot be maintained without considering land use and how the landscape is developed, and
- Addressing stormwater impacts from new development and redevelopment at the site and subdivision scale will not adequately address legacy impacts from previous development patterns and practices, nor will it serve to protect water quality.

To address these findings, stormwater programs must include planning, policies that address receiving water quality needs, and TMDLs. Programs must also include development of policy and regulations that address treatment retrofit provisions (Ecology 2018a) for existing development.

Coordination with Long-Range Plans

This permit condition requires the analysis and reporting of how stormwater infrastructure and receiving water needs are informing planning update processes and influencing land use policies and implementation strategies. This section does not intend to create a parallel planning process to ongoing long-range planning or Comprehensive Plan updates; rather, the reporting will describe how planning processes take into account, considers, and evaluates stormwater and water quality.

This must include:

- How, or if, stormwater-related water quality and watershed protection are being addressed in revisions to the City's Comprehensive Plan, and
- How water quality and watershed protection are being addressed in revisions to other locally-initiated, state-mandated long-range land use, transportation plans, or other plans used to prepare and accommodate population needs.

The initial policy and long-range plan assessment is due in 2020. Coordination between PWU and DCD through monthly stormwater program alignment meetings will help facilitate this permit requirement.

Stormwater Management Action Planning

The new permit requires Permittees to develop a prioritization process and criteria to select projects to address impacts caused by areas of existing development. This process must include the following elements:

- An inventory of local receiving waters and summary of available information about the contributing watershed areas.

- Prioritization of basins to identify the contributing watershed areas where implementation of stormwater retrofit projects will provide the greatest benefit to the receiving waters.
- Development of a Stormwater Management Action Plan (SMAP) for at least one high priority area that identifies tailored stormwater management actions, including: stormwater facility retrofits (new facilities or upgrades to existing facilities), a proposed implementation schedule, and budget sources. The plan must identify (1) short-term actions (i.e., actions to be accomplished within six years), (2) long-term actions (i.e., actions to be accomplished within seven to 20 years), and (3) a process to adaptively manage the plan.

The initial inventory and SMAP is due in 2022.

Public Education and Outreach

New permit requirements related to public education and outreach includes the following:

- Evaluation of ongoing efforts and how successful the program is at reaching target audiences.
- Documentation of lessons learned and recommendations for next steps with regional education and outreach program.
- Design the next iteration of the program using community-based social marketing methods to develop a strategy and schedule

The City's permit compliance responsibilities for these elements will be addressed through existing regional public education efforts that are led by West Sound Stormwater Outreach Group for Kitsap County. The initial program assessment is due in 2020.

System Mapping and Documentation

The new permit requires Permittees to map the system in greater detail in areas with land uses that involve storage, transfer, or use of materials that present significant risk to water quality and aquatic resources. Specific requirements include:

- Identifying the size and material of all outfalls,
- Mapping of all known connections from the City system to a privately-owned stormwater system.

The initial program assessment is due as part of the 2020 Annual Report submittal to Ecology. Implementation of this requirement is expected to be combined with source control mapping as described in the section below.

Operation and Maintenance

The new permit requires the City to update maintenance standards to be consistent with those in the 2014 Ecology Manual. The City's existing maintenance standards largely meet these current standards; however, maintenance, monitoring, and documentation systems need to be improved to demonstrate compliance with this expanded permit condition. The proposed Asset Management system is a measure to help meet this permit requirement. Asset system development and continued maintenance is expected to require 0.5 FTE to adequately comply with the Permit.

Source Control Program for Existing Development

The Source Control Program for existing and future development is intended to be a proactive, preventative, inspection-based program that is focused on addressing pollution from existing land use and activities that have the potential to release pollutants. This program will rely on the City to inspect businesses and properties, and if necessary require operational and/or structural source control BMPs in order to prevent pollution from entering the City's stormwater system. The SW permit requires the following activities:

- Adopt ordinances and/or other enforceable documents requiring the application of source control BMPs for pollutant generating sources associated with existing land uses and activities by August 1, 2022.
- Develop an inventory of potential pollutant generating sites that identifies public and privately owned commercial and industrial properties by August 1, 2022. The inventory must be created once during the permit cycle and be updated once every five years.
- Conduct business specific education and outreach to inventoried properties.
- Conduct annual inspections equal to 20% of the businesses or properties on the inventory list.
- Establish a complaint-based response program.
- Establish an enforcement program for identified sites including new ordinances. Note that the compliance strategy would include technical assistance and education and outreach as the first approach to gain compliance. Enforcement actions would be implemented only when other approaches are found to be ineffective.
- No later than January 1, 2023, implement an inspection program for identified sites pursuant to S5.C.8b.ii of the SW Permit.

A wide variety of businesses are subject to this requirement including transportation, health care, building materials, and construction. Within the City of Bremerton, there are more than 860 commercial properties with 160 "priority 1" businesses that will require inventory and inspection and over 700 "priority 2" commercial properties that

need site visits, education, outreach, and possibly upgraded to a priority 1 property. Overall, the scope of this permit requirement is expected to require 0.5 FTE to start, and 1 FTE at full implementation to maintain the program in compliance with the SW Permit schedule.

Any questions, comments, or concerns please contact Chance W Berthiaume, at chance.berthiaume@ci.bremerton.wa.us or at (360) 473-5929